

Auburn Folsom Road Widening Project

Placer County, California

Revegetation and Restoration Plan



Prepared For:
Placer County Department of Public Works
Auburn, California

Prepared by:
Dokken Engineering

March 2007

Table of Contents

Summary.....	1
Project Description.....	2
Project Location and Summary	2
On-Site Revegetation	2
Responsible Party	3
Environmental Mitigation Monitoring and Reporting Requirements.....	3
Restoration Contractor.....	4
Qualifications of Restoration Contractor	4
Scope of Work	4
Habitat to be Restored.....	4
Site Preparation	4
Upland Areas	4
Plant Material.....	5
Temporary Irrigation System.....	5
Installation Methods/Planting Methods.....	5
Trees	5
Maintenance.....	6
Revegetation Areas.....	6
Pest Control.....	6
Irrigation	6
Remedial Measures	6
Acceptance of Work	7
Supplemental Watering	7
Herbivore Control.....	7
Maintenance	7
Performance	7

Attachments

Revegetation Plan Sheets, RV-1 thru RV-7

Summary

This is the revegetation plan for construction impacts to trees associated with the Auburn Folsom Road Widening South Phase Project, Placer County, California. Figure 1 shows the regional and project location. This revegetation plan addresses Mitigation Monitoring and Reporting Program (State Clearinghouse Number 2002042036) items:

- Mitigation Measure P7.4b: Mitigate Tree Removal
- Mitigation Measure P8.3b: Mitigate Tree Removal



Figure 1: Project Location

This plan describes the scope of work, the specifications, the schedule and the performance standards for the revegetation for tree loss from the impacts associated with the proposed project.

Project Description

Project Location and Summary

The Auburn Folsom Road (AF Road) Widening Project South Phase is located on AF Road from the Placer/Sacramento County line north to Lou Place. The Placer County Department of Public Works (DPW) recommended project is a combination of alignment alternatives studied in the Environmental Impact Report (EIR)/ FONSI. The proposed alignment was selected as the preferred alternative due to its compliance with specific project goals, such as improvement of safety, capacity and design speed, while minimizing environmental and social impacts by selecting the best right of way and roadway profile combinations for specific portions of the project.

Construction of the South Phase will begin in 2007.

The proposed widening includes widening AF Road to provide four 12-foot lanes (two in each direction) and 6-foot paved shoulders to accommodate Class II bike lanes on each side. Generally, a 16-foot painted and/or raised median will also be incorporated, with a section (approximately 600 linear feet) of raised landscaped median at the south end of the project. A granite monument with an inscription welcoming people to Granite Bay will be placed in the southerly end of the landscaped median.

The proposed project will also incorporate a meandering multi-purpose trail from Oak Hill Drive south to the County line. The meandering trail will cross the canal and connect to the Baldwin Reservoir trail using the existing box culvert.

The existing signalized intersection (AF Road/Oak Hill Drive) will be modified. An 8-ft high concrete block wall is proposed for continuity on the west side of the project from Oak Hill Drive south to connect to the existing wall that was constructed by the City of Folsom.

Access to streets and driveways, specifically left turn movements, will be maintained either through two way left turn lanes, left turn pockets, or U-turn capabilities located in close proximity.

On-Site Revegetation

This plan describes the revegetation of areas impacted by the proposed project by planting native trees in upland habitat areas. Also included in this plan is a schedule for installation, monitoring guidelines and specifications for tree installation and maintenance.

Responsible Party

The Placer County Department of Public Works is responsible for implementation of this plan. The contact person for the County is

Ms. Sherri Berexa, Project Manager
Placer County Department of Public Works
3091 County Center Drive, Suite 220
Auburn, CA 95603

Environmental Mitigation Monitoring and Reporting Requirements

The Mitigation Monitoring and Reporting Program Mitigation Measure P7.4b and P8.3b: outlines the method to mitigate for the trees removed.

1. Trees removed from Reclamation property shall be replaced on Reclamation property on an inch-by-inch basis. For example, if 254 centimeters (100 inches) of tree diameter are proposed to be removed, the replacement trees shall be equal to 254 centimeters (100 inches) in diameter (aggregate). If feasible, seedlings should be from acorns collected within 30 miles of the project location in Placer or Sacramento Counties in the American River watershed and between the elevations of 100 and 800 feet. A 3-year monitoring and maintenance plan for the trees and any irrigation shall be required. The expectation is that there will be 100% survival for the replacement trees at the end of 3 years. Tree replacement on Reclamation property shall take place in close proximity to the project corridor.
2. In lieu of 50% of the mitigation for tree removal that is not on Reclamation property, a contribution to the Placer County Tree Preservation Fund shall be required. The value is based on 50% of the overall replacement estimate, which shall be submitted to the Placer County Development Review Committee (DRC) for review and approval.
3. The trees shall be installed by the contractor and inspected and approved by Placer County DPW before completion of the project. At its discretion, the DRC may establish an alternate deadline for installation of replacement trees if weather or other circumstances prevent the completion of this requirement before completion of the project.
4. For native trees removed from private lands, Placer County DPW may either:
 - a. replace the trees on the private lands with one 15-gallon native tree for each tree removed or
 - b. contribute money into the Placer County Tree Preservation Fund Mitigation

The trees shall be planted in the fall of each year.

Restoration Contractor

Qualifications of Restoration Contractor

The restoration contractor performing the site preparation, installation and maintenance shall have successfully completed (to the satisfaction of the County) a minimum of three restoration projects (installation and long term maintenance) involving the establishment of native plant communities in areas of size comparable to (or larger than) this project. The restoration contractor shall provide at least one English speaking person who is thoroughly familiar with all aspects of the project, including equipment and materials being utilized or installed and the best methods for their installation and application. Such person shall be present at all times during execution of this work and shall direct and supervise all work performed as specified herein.

Scope of Work

The restoration contractor shall furnish all labor and materials (including water) to execute this work, as indicated below and as necessary to complete the contract, including but not limited to the following:

- Site preparation and installation (and eventual removal) of temporary irrigation system.
- Installation of 624 new wire pin flags to mark the planting locations. The locations are subject to adjustment at the discretion of the project engineer. This task shall include the removal of the pin flags when directed by the engineer.
- Installation of 624 15 gallon native species oak trees obtained from nurseries that have grown the trees from locally collected seed stock as per Mitigation Measure (MM) P7.4b and MM P8.3a.
- Furnishing and installing the materials for a temporary irrigation system.
- Maintain the revegetated area for three years, per MM P7.4b and MM P8.3a.

Habitat to be Restored

The habitat to be restored by implementation of this plan will replace the native trees removed due to construction of the Auburn Folsom Road Widening Project South Phase. The revegetation will be in the form of trees in the woodland areas by the restoration contractor.

Site Preparation

Upland Areas

The project engineer and restoration contractor shall coordinate to ensure that the areas marked for tree planting areas are outside of the cut/fill slopes of the roadway, not impacting jurisdictional waters/wetlands, and conform to the Environmental Document for the project.

Plant Material

Table 1, below, lists the trees to be installed in the upland habitat restoration areas.

Location	Number of 15 gallon trees to be planted
County Right of Way (West of Auburn Folsom Road)	160
Bureau of Reclamation property (East of Auburn Folsom Road)	464
Total	624

Table 1: Trees to be planted

The tree planting areas are shown on the attached sheets RV-1 thru RV-7.

Temporary Irrigation System

The restoration contractor is responsible for survival and establishment of the installed plant material. It is the responsibility of the restoration contractor to install a temporary irrigation system to the revegetation areas. Any proposed design shall conform to the Special provisions of the Project and is subject to review and approval by the project engineer. It is the responsibility of the restoration contractor to remove the system when there is agreement between the County and the restoration contractor that supplemental watering is no longer necessary to ensure plant survival.

Installation Methods/Planting Methods

All trees shall be installed in the locations shown on the revegetation plans.

Trees

The plantings shall be spaced in a natural looking pattern with considerations for surround conditions.

- All planting holes shall conform to the details established in the project plans.
- Initial watering and back fill requirements shall conform to those outlined in the project plans and project specifications.

Maintenance

Revegetation Areas

The restoration contractor is responsible for the overall performance of the revegetation areas and is required to maintain the areas in accordance with the project specifications until the performance standards have been achieved. Normal maintenance will include herbivore control, repairs to the temporary irrigation system and replanting as necessary. The restoration contractor shall furnish and install any supplemental materials.

Maintenance shall commence immediately upon the accepted installation of the plant material. During this time, the revegetation areas shall be diligently maintained to ensure successful establishment. In addition, the restoration contractor is responsible for 100 percent survival of the trees for three years following the accepted installation. At the end of the three year establishment period, a thorough inspection shall be conducted by the County and the restoration contractor during which an inventory of all surviving trees will be prepared. The restoration contractor shall replace all dead or missing trees during the approved planting season, as directed by the project engineer.

Pest Control

The restoration contractor is responsible for protecting the trees from damage due to herbivory or trampling by wildlife. Protective measures such as fencing and cages shall be employed if necessary, subject to approval of the project engineer. The project engineer shall recommend control measures if necessary to protect the planting from damage. Any control devices shall be removed at the direction of the project engineer at such time that the trees can survive browsing and wildlife movement.

Irrigation

The restoration contractor is responsible for ensuring that the performance standards for survival are achieved. The goal of the revegetation efforts prescribed in this plan is to create a self-sufficient natural plant community; however, establishment of healthy native trees often requires supplemental irrigation. The source and costs of water shall be the responsibility of the restoration contractor. All water used for irrigation shall be pure of impurities, excess chlorine, nitrogen and salts.

Remedial Measures

Remedial measures may be necessary to repair any unsuccessful restoration efforts identified by the project engineer. These measures could include, but are not limited to, replacement of trees and modifications of maintenance methodology. The restoration contractor is responsible for implementing remedial measures required to meet the project specifications.

Acceptance of Work

All task performed by the restoration contractor shall be subject to approval by the County. The County will determine if the work for each task has been conducted in compliance with the project specifications.

Supplemental Watering

Supplemental watering by the temporary irrigation systems is the responsibility of the restoration contractor. All costs associated with the supplemental watering necessary for the establishment of the trees should be included in the restoration contractor's costs for installation and maintenance.

Herbivore Control

Control of damage to trees from herbivory are the responsibility of the restoration contractor. Costs associated with these measures shall be included in the restoration contractor's costs for installation and maintenance.

Maintenance

During the course of regularly scheduled monitoring visits, the project engineer shall inspect the condition of the site to determine whether the maintenance is being conducted in compliance with the project specifications. The results of these inspections will be in the form of a field memo.

Performance

If the restoration site does not meet the performance standards after five years due to the negligence of maintenance by the restoration contractor, any further work required for the project to meet the project standards will be at the restoration contractor's expense. If the restoration sites do not meet project specifications because of circumstances beyond control of the restoration contractor, a new contract will be negotiated for work necessary to meet the project specifications.

LEGEND

- R/W
- EROSION CONTROL APPROVED NATIVE SEED MIX
- MEDIAN LANDSCAPING (SEE HP SHEETS)
- 15 GALLON TREE (NATIVE SPECIES)

NOTE

1. TREE SPACING IS 10' ON CENTER

REVISION	DATE	DESCRIPTION AND SHEET NO.	APPROVED BY	DATE

REGISTERED PROFESSIONAL ENGINEER

BRIAN R. STEPHENSON

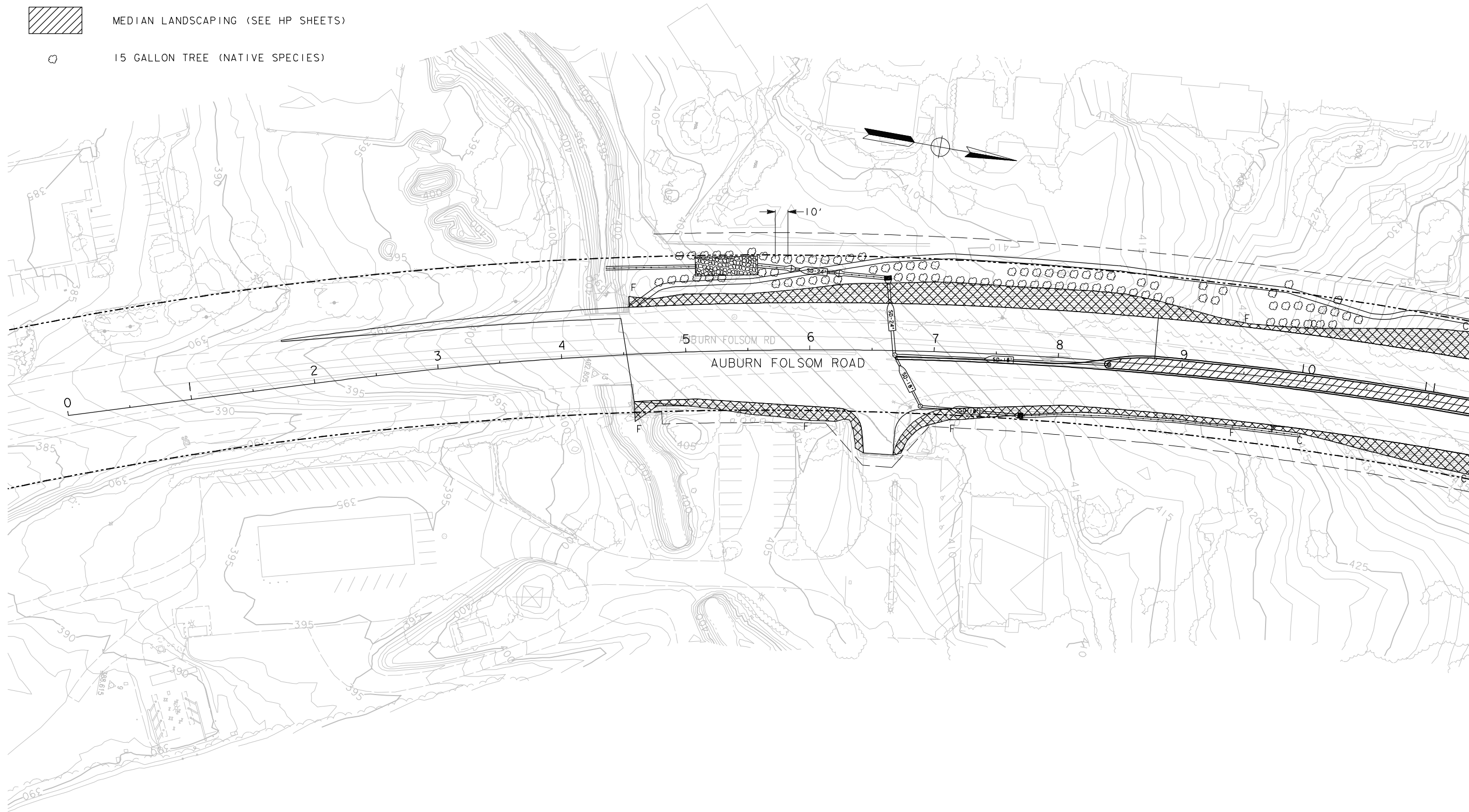
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STATE OF CALIFORNIA

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MATCH LINE STA 11+34.36 SEE SHEET RV-2

PLAN

RECORD DRAWINGS

THIS SHEET ACCURATE FOR RE-VEGETATION AND RESTORATION WORK ONLY
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

ALL DIMENSIONS SHOWN IN FEET
UNLESS OTHERWISE NOTED

INITIALS DATE

RV-1

PLAN SCALE: 1" = 40'
PROFILE SCALE: N/A
HORIZ: N/A
VERT: N/A

DESIGNED: B. STEPHENSON 01/23/07
DRAWN: B. STEPHENSON 01/23/07
CHECKED: J. OSTDIK 01/23/07
RECORD DRAWING: 1001

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FOLSOM, CA 95630
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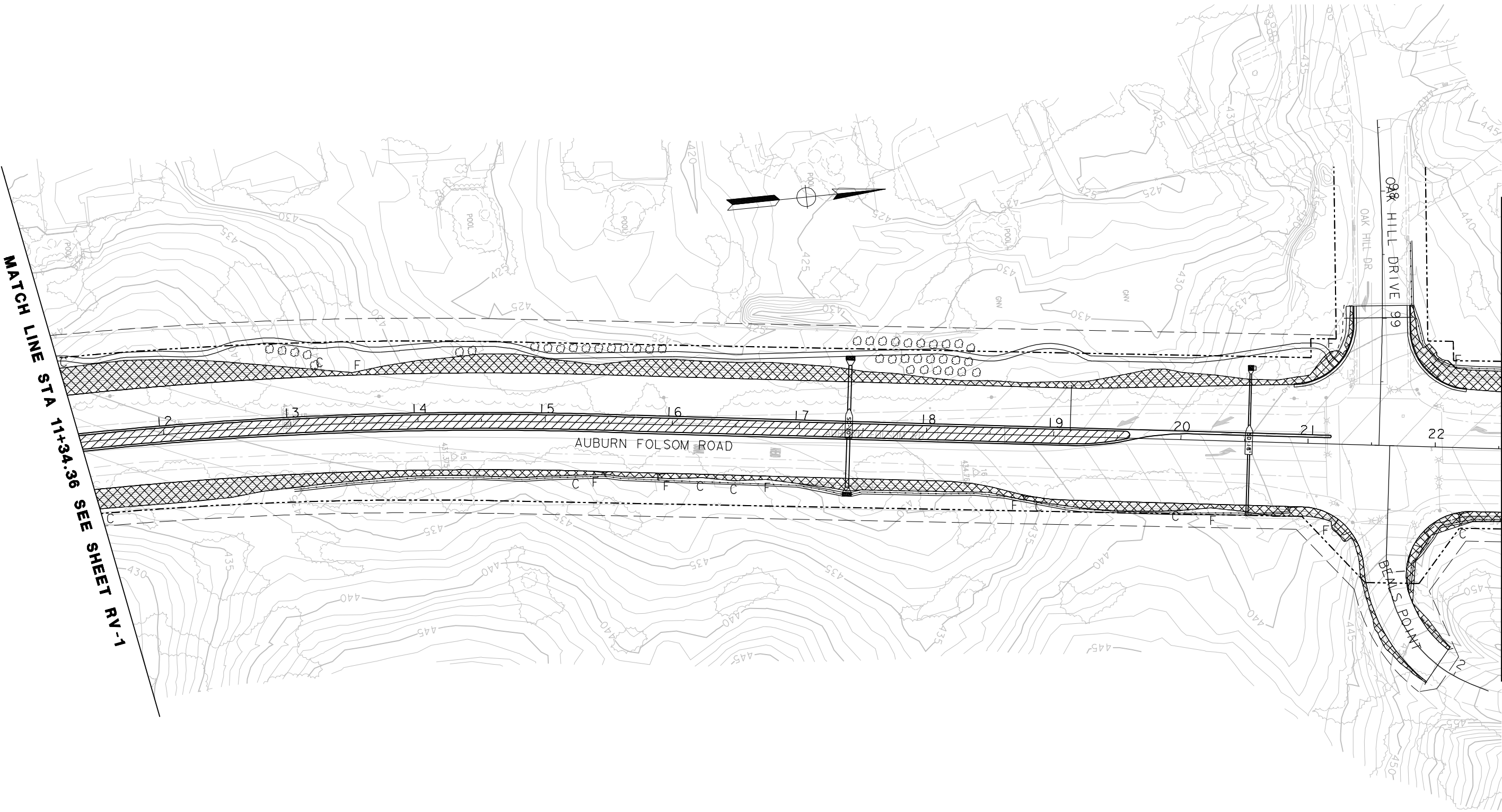
COUNTY OF PLACER DEPARTMENT OF PUBLIC WORKS
AUBURN FOLSOM ROAD WIDENING PROJECT - SOUTH PHASE
REVEGETATION PLAN

SHEET NO. 79 OF 95

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RV-2

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PROFILE SCALE:
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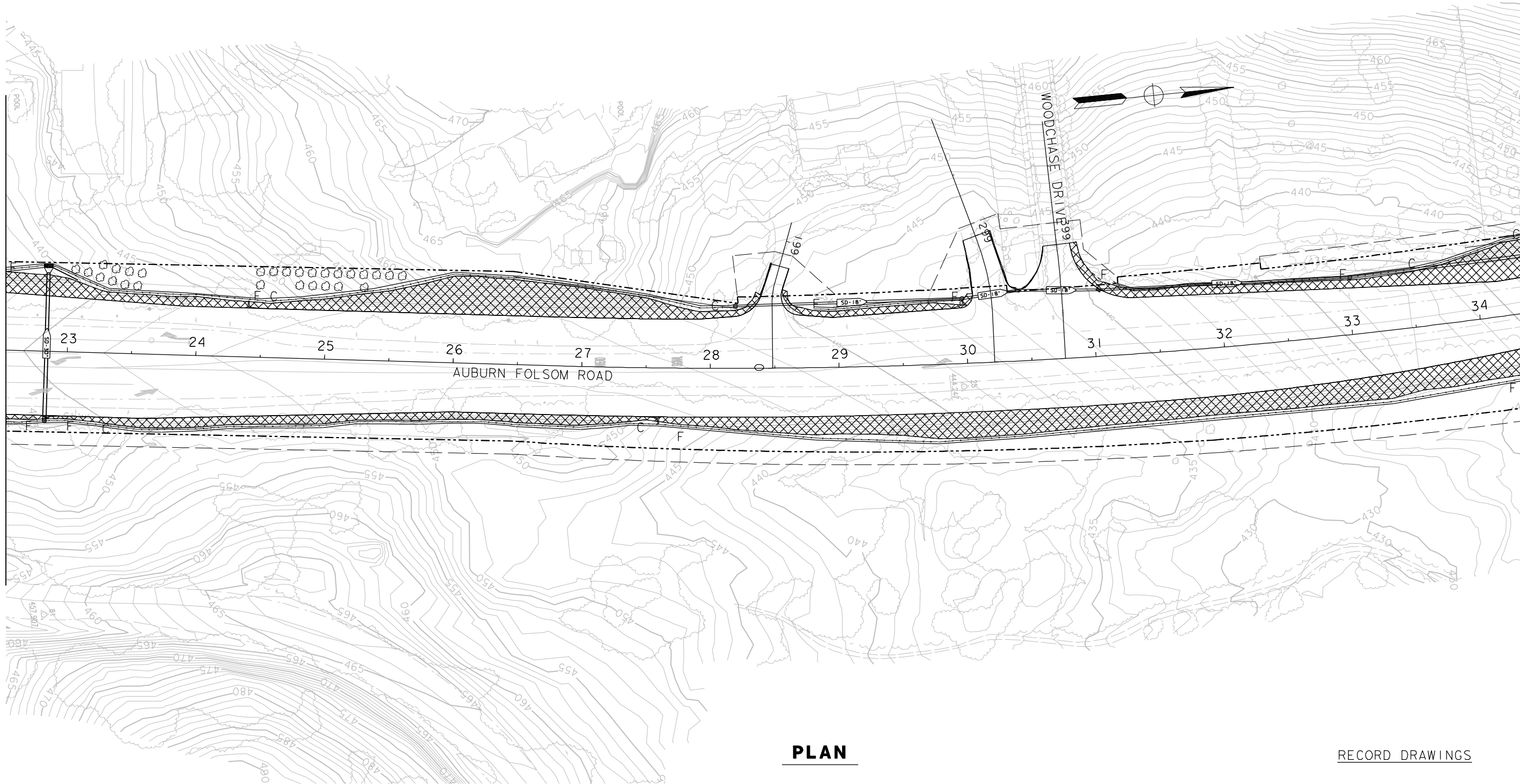


COUNTY OF PLACER DEPARTMENT OF PUBLIC WORKS
AUBURN FOLSOM ROAD WIDENING PROJECT - SOUTH PHASE
REVEGETATION PLAN

SHEET NO. 80 OF 95

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MATCH LINE STA 22+52.27 SEE SHEET RV-2



PLAN

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RV-3

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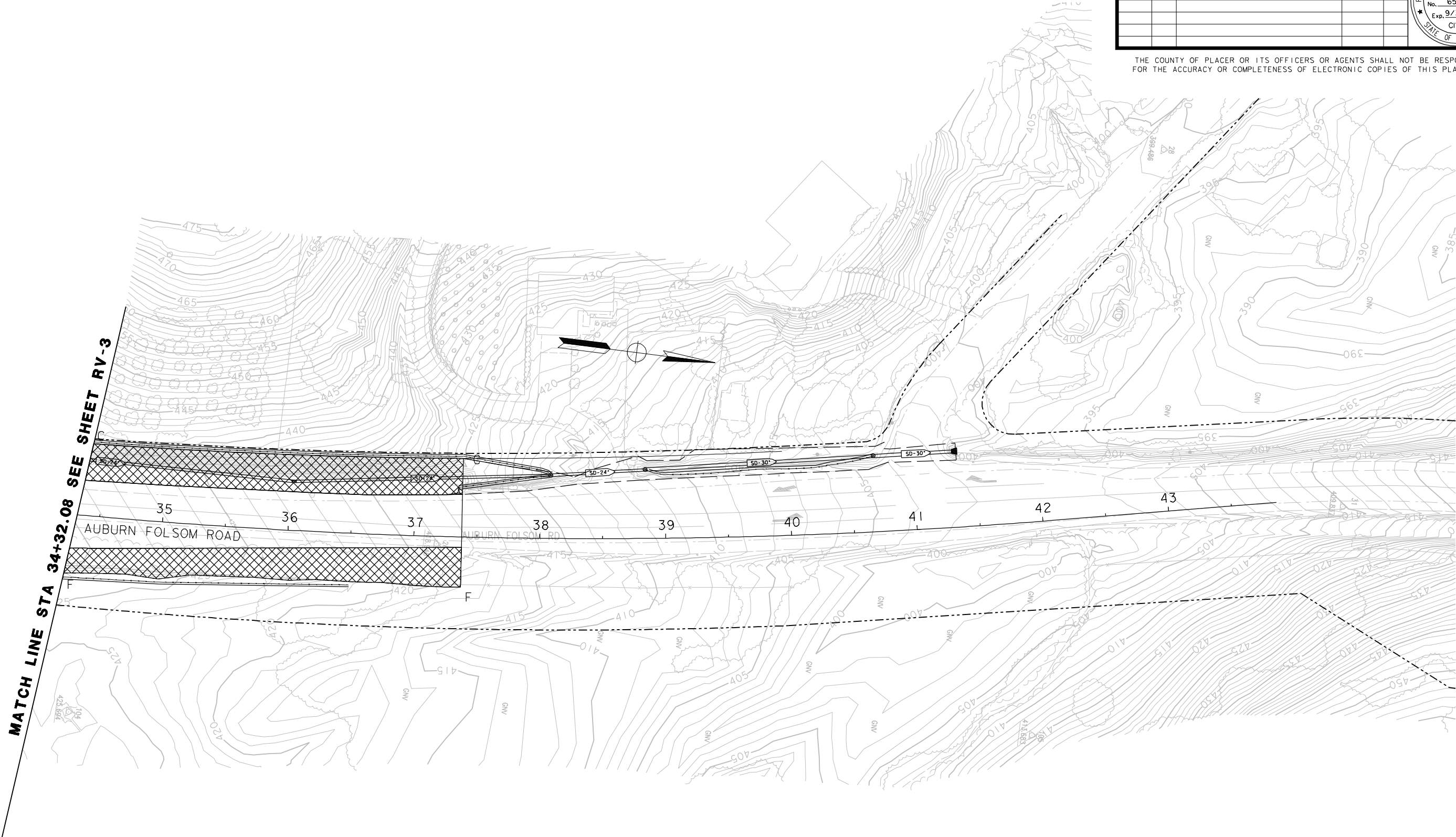
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REVEGETATION PLAN

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81
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95

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HORIZ: N/A
VERT: N/A

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RV-4

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COUNTY OF PLACER DEPARTMENT OF PUBLIC WORKS
AUBURN FOLSOM ROAD WIDENING PROJECT - SOUTH PHASE
REVEGETATION PLAN

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82
OF
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RECORD
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PLAN SCALE: 1" = 40'
PROFILE SCALE:
HORIZ: N/A
VERT: N/A

LEGEND

- R/W
- 15 GALLON TREE (NATIVE SPECIES)

NOTE

1. TREE SPACING IS 10' ON CENTER
2. TREES TO BE PLANTED ON RECLAMATION PROPERTY



PLAN

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RV-5

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PROFILE SCALE: N/A
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01/23/07



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0 1 2 3

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RECORD DRAWINGS

INITIALS DATE

RV-6



COUNTY OF PLACER DEPARTMENT OF PUBLIC WORKS

AUBURN FOLSOM ROAD WIDENING PROJECT - SOUTH PHASE

REVEGETATION PLAN

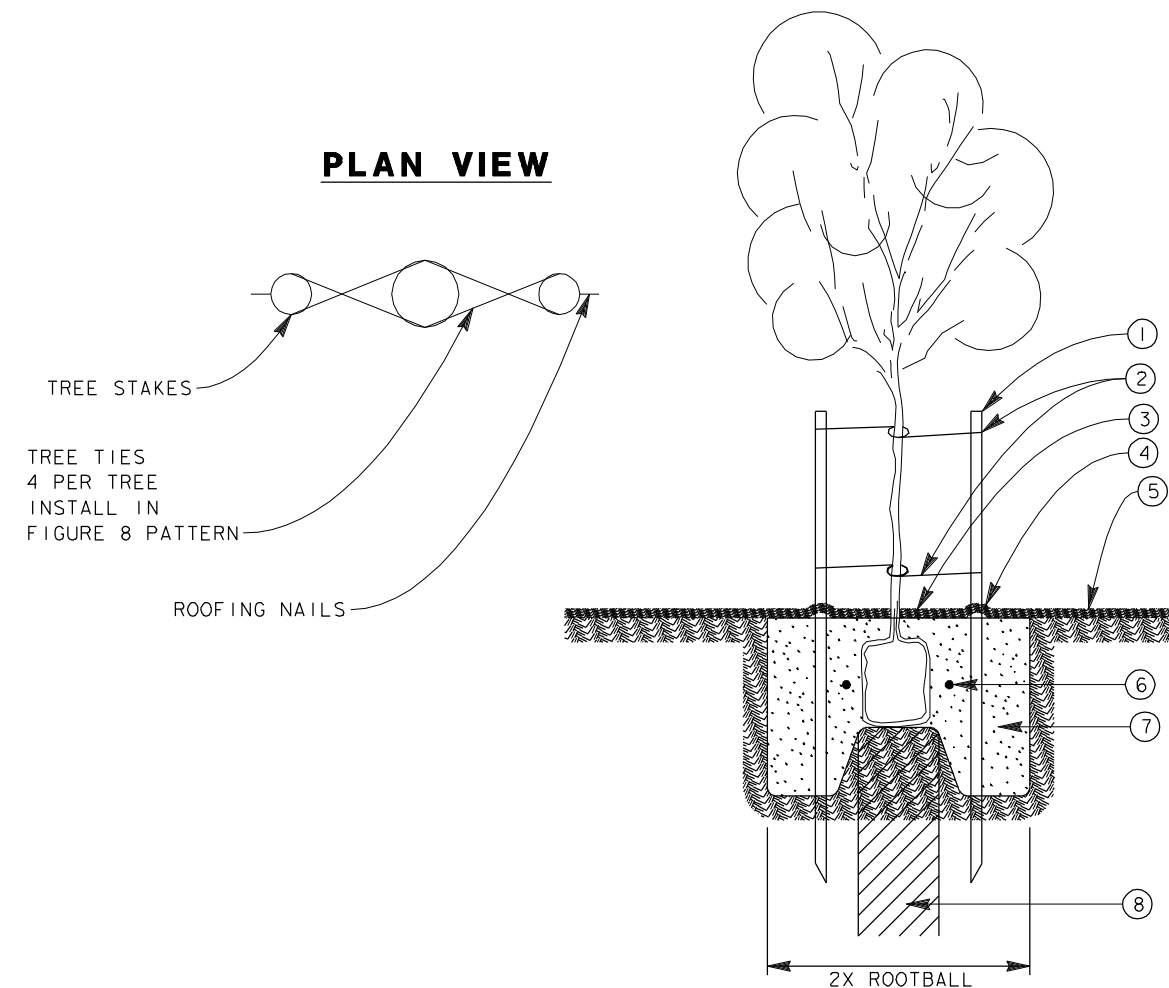
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DRAWING:

PLAN SCALE: 1"=40'
PROFILE SCALE:
HORIZ: N/A
VERT: N/A

SHEET NO. 84 OF 95

01/23/07



1. TREE STAKES: 2 PER #15 TREE. DO NOT ALLOW STAKES TO RUB TRUNK OR LIMBS.
2. TREE TIES: 2 PER STAKE.
3. MULCH.
4. EARTH MOUND.
5. FINISH GRADE. INSTALL CROWN 1" ABOVE FINISH GRADE.
6. PLANT TABS, SEE PLANT LIST.
7. PREPARED BACKFILL, SEE PLANT LIST.
8. EACH TREE PIT TO HAVE 10" DIA. X 10 FT. DEEP SOIL BORE. BACKFIELD BORE MATERIAL.
9. SEE CALTRANS STANDARD AND SPECIAL PROVISIONS SPECIFICATION FOR ADDITIONAL INFORMATION.

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**EROSION CONTROL
(TYPE D)**

LOCATION	(SQYD)
'A' 4+50.68 LT TO 'OH' 98+90.19 RT	2122
'OH' 98+90.19 LT TO 'PD-1' 199+20.00 RT	1083
'PD-1' 199+20.00 LT TO 'LV' 299+00.21 RT	97
'LV' 299+00.21 LT TO 'WC' 399+11.18 RT	20
'WC' 399+11.18 LT TO 'A' 37+37.92 LT	1430
'A' 4+56.53 RT TO 'A' 6+44.21 RT	198
'A' 6+68.62 RT TO 'BP' 1+85.97 RT	1235
'BP' 1+83.90 LT TO 'A' 37+37.92 RT	2670
TOTAL =	8855

HIGHWAY PLANTING (MEDIAN)

LOCATION	SQFT
'A' 8+37.68 TO 'A' 19+59.72	12168
TOTAL =	12168

15 GALLON TREES

SHEET	COUNTY R/W	B.O.R.
HP-1	90	
HP-2	42	
HP-3	28	
HP-4		
HP-5		342
HP-6		124
TOTAL =	160	466

RECORD DRAWINGS

INITIALS DATE

RV-7

PLAN SCALE: N/A
PROFILE SCALE: N/A
HORIZ: N/A
VERT: N/A

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